

024145

JPRS 84749

15 November 1983

# Worldwide Report

TELECOMMUNICATIONS POLICY,  
RESEARCH AND DEVELOPMENT

No. 293

19990524 156

**FBIS**

**FOREIGN BROADCAST INFORMATION SERVICE**

**DISTRIBUTION STATEMENT A**  
**Approved for Public Release**  
**Distribution Unlimited**

REPRODUCED BY  
NATIONAL TECHNICAL  
INFORMATION SERVICE  
U.S. DEPARTMENT OF COMMERCE  
SPRINGFIELD, VA. 22161

9  
54  
A04

#### NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

## NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

## PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

15 November 1983

WORLDWIDE REPORT  
TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 293

## CONTENTS

## ASIA

## AUSTRALIA

Government Studies Ways To Protect Radio Communications (THE AUSTRALIAN, 9 Sep 83) .....	1
Federal Budget Provides for Improvements in Broadcasting (THE AUSTRALIAN, 5 Sep 83) .....	2
Lack of Funds Hurting Infra-Red Communications Project (Helen Meredith; THE AUSTRALIAN, 20 Sep 83) .....	3
More Controversy Over Status, Management of Aussat (Errol Simper; THE AUSTRALIAN, 12 Sep 83) .....	5
Aussat Will Boost High-Tech Skills, Local Industry (THE AUSTRALIAN, 12 Sep 83) .....	6
Brisbane Microwave Technology Center Makes Progress (Robin Bayes; THE AUSTRALIAN, 19 Sep 83) .....	7
Briefs	
Local ACD Manufacture	8
Melbourne Earth Station	8

## INDONESIA

Briefs	
Javanese Language Broadcasts	9

## PEOPLE'S REPUBLIC OF CHINA

PRC To Host Broadcasting Council Meeting in 1985 (XINHUA, 14 Oct 83) .....	10
---	----

Thirty Years of Troposcatter Communications (DIANZI XUEBAO, No 4, 1983) .....	11
Information Retrieval Station Opened in Beijing (XINHUA, 25 Oct 83) .....	14
National Wired Broadcasting Meeting Ends in Fujian (Fujian Provincial Service, 19 Oct 83) .....	15
Briefs National Communications Meeting .....	16

## LATIN AMERICA

### INTER-AMERICAN AFFAIRS

Head of ALASEI Appointed in Mexico City 10 October (NOTIMEX, 11 Oct 83) .....	17
--	----

### BRAZIL

Briefs First Meteorological Satellites Manufactured .....	18
--	----

### MEXICO

Briefs TASS, NOTIMEX Sign Cooperation Accord .....	19
---	----

## NEAR EAST/SOUTH ASIA

### BANGLADESH

International Dialing Facilities Ready by December (THE BANGLADESH TIMES, 30 Sep 83) .....	20
---	----

### INDIA

---

INSAT-1B Sends First Weather Pictures, Test Complete (THE HINDU, 26 Sep 83) .....	23
Plans for 1985 Launching of Stretched Rohini Told (PATRIOT, 6 Oct 83) .....	26
Phone Connections to Hong Kong Improve; News Links Weak (Harvey Stockwin; THE TIMES OF INDIA, 3 Oct 83) .....	28

ITI Palghat Unit To Build Electronic Trunk Exchanges (THE STATESMAN, 26 Sep 83) .....	30
Briefs	
Geneva Telecom Exhibit	32
Low-Powered Transmitters Ordered	32
Manual Trunk Exchange	33
Satellite Communications Services	33
Satellite Television System	33
Telecom to Lakshadweep	33
ISRAEL	
Possibility of Additional Wireless Frequencies Examined (HA'ARETZ, 27 Sep 83) .....	35
SUB-SAHARAN AFRICA	
INTER-AFRICAN AFFAIRS	
RTS Hosts Regional Commonwealth Meeting (NATION, various dates) .....	36
Cooperation Stressed Sixth Meeting Opens	
SEYCHELLES	
Seychelles, China Exchange Television Programs (NATION, 3 Oct 83) .....	39
SOUTH AFRICA	
Vast Imbalance in 'Yes-No' Vote Coverage Claimed (Greg Garden; RAND DAILY MAIL, 25 Oct 83) .....	41
Health of Computer Business Reported (INDUSTRIAL WEEK, 4 Oct 83) .....	43
Briefs	
Eksteen Slated for 'Political Bias'	44
Argentine Mine Orders Computer System	44
SWAZILAND	
Briefs	
Canadian Aid Satellite Station	45
TV Company Nationalized	45

USSR

Briefs

Intersputnik Approves Draft Accord

46

WEST EUROPE

FRANCE

Briefs

DP for Small French Firms

47

Jeumont-Schneider's Cordless Telephone

47

GOVERNMENT STUDIES WAYS TO PROTECT RADIO COMMUNICATIONS

Sydney THE AUSTRALIAN in English 9 Sep 83 p 9

[Text]

THE Government is considering the effectiveness of legislating to protect the privacy of radio communications because of the proliferation in Australia of cheap radio scanners.

The proposal could offer a technological solution to the problems created by the scanners although the Government considered it impractical to ban or license them, the Government Leader in the Senate, Senator Button, said during question time in the Senate.

It would be quite ineffective to pass a law making interception illegal as such a law would be quite unenforceable, he said.

"But the Government is examining whether radio communications privacy legislation would be effective if it covers a technological solution to the problem," Senator Button said.

He was replying on behalf of the Communications Minister, Mr Duffy, to Senator Rosemary Crowley (ALP, SA).

She referred to a Sixty Minutes television program at the end of July which reported the sale in Australia of more than 10,000 radio scanners capable of listening in to communications of police, fire brigades, aircraft, ships at sea

and anyone else using a two-way radio or mobile telephone.

"Is the Government giving any consideration to banning these scanners or licensing them, and what, if any, other proposals are being considered by the Government about this question?" Senator Crowley asked.

Referring to a written reply from Mr Duffy, Senator Button said the use of the devices was not illegal except where a Telecom mobile telephone service was involved.

He said the Sixty Minutes program had performed a public service by highlighting how easy it was to eavesdrop on radio communications.

The Government was discussing with Telecom the question of its mobile telephone service and the use of scanners.

However, it was important to realise that in the new technological society the use of such devices was regarded by young people as the same as using a public street.

"The simple fact is that when you speak in the street you may expect to be overheard," Senator Button said.

"If you use a radio, you must also perhaps now expect to be overheard."

CSO: 5500/7502



# FEDERAL BUDGET PROVIDES FOR IMPROVEMENTS IN BROADCASTING

Sydney THE AUSTRALIAN in English 5 Sep 83 p 11

[Text]

THE Federal Government plans to implement a major radio and television scheme which will bring ABC programs to the many communities around Australia who cannot receive services, according to the Department of Communications.

As part of its 1983-84 Budget allocation to the ABC, the government will provide \$780,000 in 1983-84 for the first year of the three-year Remote or Underserved Communities Scheme (RUCS), which will cost a total of \$6.2 million.

Stage one of the scheme provides an ABC medium frequency radio service to 12 sites in north west Tasmania, southern NSW and northern Victoria.

ABC television will be provided to about 75,000 Australians living outside the service areas.

During the three year period the television segment of RUCS is designed to provide service to 42 communities which were without adequate service.

In addition to this the ABC is to receive \$200,000 to improve its facilities in Hobart and Sydney.

The Government has also allocated an initial \$550,000

to the Department of Communications in 1983-84 to help it reduce the backlog in planning proposals for broadcasting services.

The Department of Communications is to buy more than 150 earth stations as part of its work to allow ABC television and radio programs to be distributed around the country using the Aussat satellite system.

Minister for Communications, Mr Michael Duffy, said \$1.5 million had been allocated for the overall program in the Budget and this would rise to an estimated total of about \$8.2 million by 1986-87.

## Automated

In another move, the Government has authorised Telecom Australia to buy four transmitters to allow multi-cultural television to be extended to Newcastle, Wollongong, Adelaide and Brisbane.

The four services, which are scheduled to come online in the second half of 1984-85, will cost an estimated capital cost of \$3.8 million.

The department is to spend \$480,000 on new automated equipment designed to improve its management of the radio frequency spectrum and the planning of its efficient use.

This will also allow the de-

partment's radio frequency management division to gather data on use of the spectrum and detect and locate illegal transmissions.

Radiocommunications fees are set to rise. According to Mr Duffy, the overall budget strategy, inflation and the increased cost of managing the radio frequency spectrum had prompted the need for higher rates.

He said the government had decided to exercise its option under the Radiocommunications Licence Fees Act 1982 and include a royalty component in the fee structure.

Licence fees payable by large Australian radio and television stations will also rise, following a decision by the Government to amend the two relevant Acts: The Broadcasting Station Licence Fees Act 1964 and the Television Station Licence Fees Act 1964.

The effects of the amendments would be to modify the fee scale for stations with annual gross earnings (AGE) of over \$9 million; to raise the present ceiling on fees paid by commercial radio stations from 5 per cent to 5.5 per cent of the AGE; and to raise the present ceiling on fees paid by commercial television stations from 7.5 per cent to 8 per cent of the AGE.

CSO: 5500/7502

# LACK OF FUNDS HURTING INFRA-RED COMMUNICATIONS PROJECT

Sydney THE AUSTRALIAN in English 20 Sep 83 p 12

[Article by Helen Meredith]

[Text]

AN infra-red computer communications research project which has reached an advanced stage may grind to a halt unless more funds can be found.

The diffuse infra-red broadcast system, developed by a senior lecturer in computer science at Sydney University, Dr Ian Parkin, uses an inexpensive transmitter and receiver which can send data in invisible light flashes to and from any point within an enclosed space.

The system would make expensive computer terminal cable connections unnecessary.

United States and Japanese computer industry giants, IBM and Fujitsu, have been experimenting with infra-red data transmission using a satellite system which involves a central receiver and transmitter located in a globe on the ceiling.

## Credence

IBM's project has apparently gone into limbo and Fujitsu demonstrated a system working at a disappointingly low data rate at a conference in the US earlier this year.

But neither manufacturer has yet produced a product for the marketplace.

According to Dr Par-

kin, the satellite system may not be the most suitable means of internal office data transmission.

"Our system 'sprays' infra-red data diffusely around a room which means there is less chance of information shadows occurring as with the satellite systems," he said.

Dr Parkin is certain that communication between terminals, computers and similar devices within offices and homes will become more important as application for computers evolve.

The concept of using infra-red light as a transmission medium within enclosed spaces has been rapidly gaining credence.

NASA plans to use it for communication between astronauts in future space shuttle flights and Hughes Aircraft are planning infra-red transmission of music within aircraft.

The technology poses no threat to health. The intensity of infra-red light used in a diffuse broadcast system is one-millionth the strength of infra-red radiation in sunlight.

The research has been funded over the past two years with grants totaling \$1 million from the Australian Research Grants Scheme, the Australian Computer

Research Board and a major US telephone company.

The university researchers are now ready to hand over the system to a manufacturer for the production of prototypes to go into test sites in rugged environments.

The researchers will try to keep the project afloat. But they have few avenues of financial support and they need to have the system tested in a tough, real-world location.

Schools, according to Dr Parkin, are ideal.

Grants now available through the Advisory Committee on the Educational Use of Communications Technology, are aimed at research into the educational uses of the domestic satellite.

But there seems to be no reason why the infrared system should not also be eligible for such funding since it has the potential to serve the future communication needs of educational institutions.

Dr Parkin estimates the cost of building each system at \$400-\$500. Mass production could bring this cost down to as little as \$50, with a manufacturer in a position to take advantage of VLSI special-purpose chips now built locally.

The Government has signalled its intention to financially assist high-tech venture capital projects with proven potential. A tax incentives scheme has been announced.

CSO: 5500/7504

MORE CONTROVERSY OVER STATUS, MANAGEMENT OF AUSSAT

Sydney THE AUSTRALIAN in English 12 Sep 83 p 3

[Article by Errol Simper]

[Text]

THE chief of the Nine commercial television network, Mr Kerry Packer, is "completely disillusioned" with the way introduction of Australia's domestic communications satellite has been handled and considers there has been "\$400 million worth of incompetence".

And the Federal Minister for Communications, Mr Duffy, has hinted that Telecom should be the owner of the satellite, Aussat, to be launched in 1985.

**'Disillusioned'**

Mr Packer said at the weekend on ABC television's current affairs program Four Corners that introduction of the satellite — which is expected to bring television and telephones within the range of 30,000 outback dwellers who have no access to them now — had been "bungled from the beginning".

"They've got me to the stage now where I really don't care any more," Mr Packer said.

"I'm completely disillusioned with the way it's been handled. The whole system could have been up and operating for about \$200 million. Now they tell us it's going to cost \$600 million.

"That's \$400 million worth of incompetence."

Mr Packer also criticised Telecom and others "who in the beginning turned around and said there's no demand for it (the satellite)" and who now wanted "a piece of it".

Four 30-watt satellite transponders (which can direct audio and visual signals to and from the ground) are earmarked for the ABC.

Mr Packer said the three main commercial networks, Seven, Nine and Ten, should be allocated a transponder each.

Mr Duffy spoke of a need to protect Telecom.

"If you're going to have private enterprise being able to receive and transmit from the satellite then it may well be difficult to control, in fact, what happens on the satellite," he said.

"There could, in fact, be third parties using the satellite in a way which could affect Telecom and that's why you have to be very careful, in my view, legislatively.

"That's why my preferred view is that I think the way to protect Telecom is that they should, in fact, be the responsible authority to own the satellite."

Mr Duffy said commercial networks had taken the view that they could provide the best community service but it was "not a view that everyone shares".

# AUSSAT WILL BOOST HIGH-TECH SKILLS, LOCAL INDUSTRY

Sydney THE AUSTRALIAN in English 12 Sep 83 p 12

[Text] HIGH technology skills garnered by Australians working on the Aussat satellite project will prove invaluable to the future of the local electronics and telecommunications industry.

This is the view of the Australian Electronics Industry Association, which represents major Australian companies in communications, electronics and data processing.

The executive director of the AEIA, Mr Ed Hodgkinson, said Australian involvement on the project "proves that Australia has the expertise to warrant heavy involvement in any other future satellite communications programs".

The Hughes Aircraft company is building the Aussat satellites in California.

A US space shuttle is due to launch the first of the satellites late in 1985.

Two Australian companies, STC and AWA, have been

given Aussat contracts from the Hughes company.

A third company, NEC Australia, has won three contracts worth \$25 million to build ground station equipment.

AWA has a \$5 million-plus contract to build two sub-systems for the tracking telemetry command and monitoring system, a part of the ground control stations.

## Harnesses

STC is assembling the cable harnesses for the satellites.

Each harness has 2000 wires connecting to half of the "central nervous system", which keeps the satellite on the right orbital path.

Mr Hodgkinson said the AEIA supported the Federal Government's decision to go ahead with the Aussat project despite claims from the Australian Telecommunications Employees Association which wanted the program scrapped.

The union claimed the project would cost "at least" \$650 million over the life of the first-generation system to 1992.

But the Government denies the satellite will cost anywhere near this figure.

Mr Hodgkinson would not comment on the row over the question of public or private ownership of Aussat.

"We are more concerned with ensuring that whoever operates our satellite systems gives the maximum contract work possible to Australia-based companies," he said.

The project would give tremendous impetus to the high technology sector of the telecommunications and electronics industry.

"The industry within Australia is well capable of manufacturing and maintaining ground station equipment for satellite systems," Mr Hodgkinson added.

CSO: 5500/7502

BRISBANE MICROWAVE TECHNOLOGY CENTER MAKES PROGRESS

Sydney THE AUSTRALIAN in English 19 Sep 83 p 11

[Article by Robin Bayes]

[Text]

THE establishment of a microwave technology development centre in Brisbane has begun to show dividends.

The centre is a joint project by the University of Queensland and the Department of Science and Technology for industrial and scientific research into microwave technology.

After being in existence for two years it is expected that contracts worth more than \$200,000 will be written by the centre over the next year.

The aim of the centre is to make university expertise available to Australian industry for research, design and development work in microwave technology.

The Federal Government provided an initial grant of \$700,000 for the first three years.

The director of MITEC, Pro-

fessor Morris Gunn, believes it will be fully established and self-supporting by 1988.

"In this type of operation it is not realistic to expect commercial viability in the short term," he said.

"Progress so far, however, has been most encouraging, and supports the view that the original concept was sound."

Professor Gunn, a director of Aussat Pty Ltd, says that in its short existence MITEC has won recognition as the principal centre in Australia for applied research into microwave technology.

The main efforts of MITEC have involved microwave communication systems for civilian, defence and satellite applications.

It expects to assist in achieving greater Australian technological participation in other areas.

CSO: 5500/7504

BRIEFS

LOCAL ACD MANUFACTURE--DATAPOINT Australia is planning to manufacture the boards for its automatic call distributor (ACD) systems in Australia. Managing director Mr Philip Michod emphasised that it would be a manufacturing operation, not just assembly, and added that if the scheme was successful the company planned to build terminals here too. The initial move follows the company's appointment as Telecom Australia's national supplier. The company said it was the first computer supplier to win a supply contract from Telecom Australia for telecommunications equipment and one of Telecom's specifications was that the product had at least a 70 per cent local content. Details about manufacturing facilities are not yet finalised and at least three companies have bid for the contract, although Centre Industries is tipped to win the deal. Production is planned to start as soon as the contract is agreed. [Virginia Addison] [Excerpt] [Sydney THE AUSTRALIAN in English 6 Sep 83 p 13]

MELBOURNE EARTH STATION--A DISH-SHAPED satellite earth station is to be built near Melbourne. The Overseas Telecommunications Commission has bought land at Healesville, 60km north-east of Melbourne, and the construction stage of the project will be finished early next year. This will include the dish-shaped antenna and a building to house equipment. The station, with two recently designed antennae, will be used for transmitting "electronic mail" between the 23 participating sites in nine Pacific countries, including tutorial or talk-back sessions with students in remote areas. An OTC spokesman said the existing landscape on the 13ha site would be maintained, and would shield the 18m high dish from view from nearby roads. The antenna will be able to receive telecommunications signals direct from the Intelsat Pacific Ocean satellite, which is used by OTC for contact between Australia, North American and Pacific countries. OTC said it would benefit Melbourne by providing better satellite coverages from the United States, and coping with the increased demand for special business services in the city. [Sydney THE AUSTRALIAN in English 12 Sep 83 p 3]

CSO: 5500/7502

INDONESIA

BRIEFS

JAVANESE LANGUAGE BROADCASTS--The district chief of Gorontalo, (Martin Liputo), is of the opinion that the inclusion of a 30-minute Javanese language radio transmission by the Radio Republik Indonesia Gorontalo station since 1 October is evidence of the government's efforts to provide information to the people in the rural areas. It is hoped that the transmission will be able to provide both entertainment and information to the transmigrants hailing from Java. The special Javanese language transmission is broadcast daily 1430-1500 central Indonesian time [0630-0700 GMT]. [Summary] [BK091211 Jakarta Domestic Service in Indonesian 0700 GMT 3 Oct 83 BK]

CSO: 5500/4304



PEOPLE'S REPUBLIC OF CHINA

PRC TO HOST BROADCASTING COUNCIL MEETING IN 1985

OW140925 Beijing XINHUA in English 0812 GMT 14 Oct 83

[Text] Auckland, New Zealand, October 14 (XINHUA) -- The 35th meeting of the Administrative Council of the Asia-Pacific Broadcasting Union (ABU) and associated meetings that ended here today decided to commemorate the 20th founding anniversary of the union next year.

The 12-day ABU Administrative Council meeting agreed to hold commemorative activities from October 30 to November 10, 1984, in Tokyo when the 21st ABU General Assembly is convened.

It was decided to hold the 1984 mid-year council meeting in May in Sydney, Australia.

It was agreed that the 1985 mid-year council meeting would be held in Beijing at the suggestion of the Chinese radio and television delegation led by Director Yan Zhaolin of the Central People's Broadcasting Station.

The Chinese delegation announced its contribution of 15,000 U.S. dollars as part of the fund dedicated to the anniversary activities.

The ABU Engineering Committee awarded the "best article prize" to the radio and television network of the People's Republic of China for its paper on radio programming.

Abdullah Mohamed, director-general of Radio and Television Malaysia was elected the ABU president to replace Sumadi of Indonesia.

---

CSO: 5500/4143

THIRTY YEARS OF TROPOSCATTER COMMUNICATIONS

Beijing DIANZI XUEBAO (ACTA ELECTRONICA SINICA) in Chinese No 4, 1983 pp 46-47

[Excerpt] 2. Progress in Our Country

In the latter part of the 1950's, our country began propagation tests and research in tropospheric scatter transmission, gathering large amounts of tropospheric scatter propagation test information along typical tropospheric scatter transmission paths in the North China and East China areas. In the 1960's on the basis of this information, China's electric wave transmission research department produced a set of methods for calculating transmission loss on scatter channels and for circuit design calculations.

Work on our country's development of tropospheric scatter communications equipment began in the early 1960's. Because of limitations on the level of our parts, we first developed meter-band electron tube frequency modulated analog scatter transmission equipment with a capacity of 12 voice channels, and after that developed decimeter-band frequency modulated analog scatter transmission equipment with a capacity of 60 voice channels. Beginning in the late 1960's, we also carried on development work on digital tropospheric scatter communications equipment. The long-range fixed station scatter equipment and the short-range portable scatter equipment successfully developed in the early 1980's are comparatively advanced digital equipment. They all utilized time-frequency-phase signals with in-band frequency diversity high-efficiency phase modulation, respectively using coherent and differential coherent demodulation, with spread convolutional coding and threshold decoding used in time division multiplexers transmitting telegrams and data signals. With the exception of the power amplifier, transistors and integrated circuits are used for all of the equipment. The equipment design is in keeping with standardization and serialization requirements, being higher interchangeable in character, flexible in the mounting of subassemblies, and suitable for meeting varied application requirements as well as being comparatively complete in functions and simple and convenient to operate. In 1982, an expert from a foreign factory with long experience in the development and production of tropospheric scatter communications equipment expressed his opinion during technical discussions following a tour of one type of our scatter communication products that we could attain all production objectives

they could achieve if we could only make the quality of our components meet technical requirements and combine them with the requisite production facilities and testing measures. This coincides with the basic estimates we derived from our investigative visits abroad.

With our country's vast area, varied topography, and long coastlines, the employment of tropospheric scatter communication is particularly applicable in our sparsely populated deserts and high-altitude cold regions of the northwest, the mountainous regions of the southwest, and in coastal and adjacent island regions. From the latter part of the 1960's on, some of our industrial departments have, on a step-by-step basis in certain larger areas, established some regional tropospheric scatter communication channels. Their superiority has been recognized by the departments utilizing them. Regardless of whether we view its potential or whether we compare its breadth of utilization with that of other countries, our utilization of scatter communications may only be said to be in its beginning stage. Because vast areas in China are suitable for the employment of tropospheric scatter communication systems, there are prospects for its widespread adoption in the development of communications for offshore petroleum exploration, electric power dispatching, fuel and gas transmission lines, newly established mining power stations, and for military use. With the continuing development of construction along with the Four Modernizations, our country will have to develop and produce even more tropospheric scatter communication system equipment and to establish even more tropospheric scatter communication channels.

### 3. A Brief Outlook

Summing up the views of the experts concerned both in China and abroad, henceforth the principal directions in the development of tropospheric scatter communications technology are:

- (1) In passing from analog message transmission to digital message transmission, the current analog scatter circuits will be modified step by step to digital scatter circuits using newly developed and produced digital tropospheric scatter equipment.
- (2) Exploring the best signal form along scatter paths and various forms of adaptive communication to increase the utilization rate of frequency bands used for scatter communication paths and to exploit fully the latent transmission capabilities of scatter communications.
- (3) Using the best match of modulation and coding along with angle diversity to develop light low-capacity movable scatter stations and using only one antenna and one transmitter will lower equipment manufacturing costs and increase the mobility of scatter stations.
- (4) With tropospheric scatter communications stations as a base, develop multipurpose standardized equipment and mobile stations, which can operate in tropospheric scatter and visibility range conditions and which have a unified specification, to replace step by step the current visibility range radio relay stations.

(5) Improving basic components to miniaturize equipment further, such as using microminiaturized component system in the equipment and developing a semiconductor radio-frequency power amplifier with overall power of 1000 watts which can be mounted on the antenna to achieve the greatest reduction in the volume and weight of scatter communication equipment.

(6) Improving the concealment and antijamming capability of scatter communications, such as adopting automatic transmitter power adjustment systems, reducing the average radiated power, using acutely directional antennas, automatically changing operating frequency, adopting complex signals operating under conditions involving a single transmission within a short time period of prearranged signals, developing specially structured antennas suited for concealment, and so on.

(7) Extending the use of tropospheric scatter communication equipment from exclusively message transmission to remote control, such as remotely controlling certain automated installations from special-purpose tropospheric scatter communication equipment.

(8) Expanding the application of scatter communication to civilian communications, particularly in communications for offshore oilfields, power transmission, oil and gas pipelines, and for new mines as well as applications for transmission of broadcast programs.

#### 4. Conclusion

Although China started later than the technologically advanced countries in the exploitation of the valuable resource of tropospheric scatter communication, significant results have been achieved in applications research, development of technology, development of equipment, and the building of technical teams. This fact is adequately explained by the successful development, deployment, and application of the new-model digital tropospheric scatter communication equipment. Promoting its widespread use, however, is not an easy matter. As is the case with all other types of electronic products, it must be geared to applications and adopted widely by the various sectors of the national economy in order to promote its development. Because costs can be effectively reduced only by widespread applications and more importantly only by the practical test of applications by the various sectors can product performance be continuously and efficiently improved, perfection approached step by step, and economic benefits manifested themselves continuously and increasingly. Therefore, painstaking cooperation among developing, production, user, and instructional departments is similarly an extremely critical link in the development of the scatter communication resource and in further promoting the establishment of the Four Modernizations.

8174

CSO: 5500/4180

INFORMATION RETRIEVAL STATION OPENED IN BEIJING

OW251449 Beijing XINHUA in English 1436 GMT 25 Oct 83

[Text] Beijing, October 25 (XINHUA) -- A two-terminal international station for on-line information retrieval at the Institute of Scientific and Technical Information of China started operation today.

Opened by Yan Jici, vice-chairman of the Standing Committee of the National People's Congress, the station is linked with the information retrieval service of the European space agency. The station will provide data and information services to Chinese scientists and other departments through telecommunications satellites linked with foreign data bases.

In building the station, the Institute of Scientific and Technical Information of China was supported by UNESCO, the European space agency and Italcable, which provided relevant equipment and helped train Chinese technicians.

---

CSO: 5500/4144

NATIONAL WIRED BROADCASTING MEETING ENDS IN FUJIAN

OW230422 Fuzhou Fujian Provincial Service in Mandarin 1130 GMT 19 Oct 83

[Text] The national meeting sponsored by the Ministry of Radio and Television to discuss wired broadcasting in the rural areas of eight provinces and cities closed in Zhangzhou on 18 October after a 10-day session. Attending the meeting, which discussed the design and construction of broadcasting circuits and other technical matters of wired broadcasting in the rural areas, were representatives from Jiangxi, Zhejiang, Jiangsu, Shanghai, Sichuan, Jilin, Heilongjiang and Fujian.

During the session the delegates visited wire broadcasting facilities in (Xindao) Commune in a suburb of Zhongzhou City. They also called on (Tan Jiasheng), a wired broadcasting maintenance and management contractor of (Pinan) Commune. The comrades attending the meeting held that maintenance of broadcasting circuits by means of contractors is a method worth emulating.

CSO: 5500/4145

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

NATIONAL COMMUNICATIONS MEETING -- The meeting to mark the founding of the nationwide rural communications technological information network and the meeting on technological exchanges were held in Zhengzhou on 23 October. Experts, scientists, and technologists attended from 26 provinces, municipalities, and autonomous regions, including Beijing, Shanghai, Tianjin, Jiangsu, Zhejiang, Sichuan, and Yunnan; and 8 units, including the scientific and technological information group and the design institute under the Ministry of Posts and Telecommunications. After the establishment of the information network, it will shoulder the tasks of exchanging and disseminating new and advanced rural communications technology and techniques.  
[Summary] [Zhengzhou Henan Provincial Service in Mandarin 1100 GMT 26 Oct 83 HK]

---

CSO: 5500/4145

INTER-AMERICAN AFFAIRS

HEAD OF ALASEI APPOINTED IN MEXICO CITY 10 OCTOBER

FL111100 Mexico City NOTIMEX in Spanish 0450 GMT 11 Oct 83

[Text] Mexico, 10 Oct (NOTIMEX)--The director general of the Mexican News Agency (NOTIMEX), Hector Manuel Ezeta, this evening was appointed president of the Managing Council of the Latin American Agency for Special Information Services (ALASEI).

At the Managing Council's first meeting, shortly after the establishment of the new Latin American news organization, Miguel Angel Cariel, director general of the Venezuelan Press Agency (VENPRESS), was appointed vice president.

The manager of ALASEI will be German Carnero Roque. He had, up to the present time, been the secretary of the action committee to establish ALASEI, a branch of SELA.

The next meeting of the ALASEI Managing Council is slated for the latter half of April 1984 and the agency is expected to begin operations in July 1984.

During this evening's session, representatives of the governments of nine Latin American and Caribbean countries--Bolivia, Cuba, Ecuador, Haiti, Mexico, Nicaragua, Panama, Dominican Republic, and Venezuela--approved a resolution in which the ALASEI Managing Council expressed its total support for the efforts of the Contadora Group and urged the parties involved in the Central American conflict to take urgent steps to guarantee a firm and lasting peace.

The appointments of the president and vice president of ALASEI were unanimously approved following their nomination by the representative from Nicaragua, Manuel Espinoza.

CSO: 5500/2009



BRAZIL

BRIEFS

FIRST METEOROLOGICAL SATELLITES MANUFACTURED--With technology developed by the National Institute of Space Research, Amplimatic Telecommunicacoes S. A. [Amplimatic Telecommunications, Inc.] has manufactured the first Brazilian-made meteorologic satellite, which will be marketed by the Fundacao de Ciencia, Aplicacoes, e Tecnologia Espaciais. [Excerpt] [JORNAL DO BRASIL in Portuguese 26 Sep 83 p 4 PY]

CSO: 5500/2011

MEXICO

BRIEFS

TASS, NOTIMEX SIGN COOPERATION ACCORD--Mexico City, 12 Oct--An agreement on cooperation in the sphere of information exchange between TASS and the Mexican Government information agency NOTIMEX has been signed here. The document also envisages the lending of assistance to the NOTIMEX agency in training technical specialists and the mutual provision of photographic information. [Text] [TASS report: "Agreement Signed"] [PM131936 Moscow IZVESTIYA in Russian 13 Oct 83 Morning Edition p 4]

CSO: 5500/2009

INTERNATIONAL DIALING FACILITIES READY BY DECEMBER

Dhaka THE BANGLADESH TIMES in English 30 Sep 83 p 1

[Text] Installation work of a 3,000-line international trunk dialling system with facilities for making direct call round the world is expected to be completed before the 14th Islamic Foreign Ministers Conference begins here in December next.

This is part of Bangladesh Telephone & Telegraph Board's Taka 2.5 crore plan to modernise and update the country's telecommunication link with out side world as well as inside the country.

A T.&T. Board source told BSS that work was in full swing to provide the Sangsad Bhabian, the venue of the Islamic Conference, and three posh hotels, Sonargaon, Inter-Continental and Purbani with efficient telephone, telex and radiophoto facilities.

The source said 400-blue-colour telephone sets for PABX and 3,800 sets of six different colours were being installed at the conference venue and the three hotels. Another 200 push-button sets will be provided at the conference venue.

For the media centre, the cable work has been completed and tested and installation of booths will be completed by November.

The source said for photo reception, four participating countries--Pakistan, Lebanon, Qatar and Bahrain--have so far asked for facilities and the Board is ready with the equipment and expertise.

He said 23 bilingual telex machines for transmission in Arabic and English were expected to reach Dhaka in a week's time from West Germany.

The Islamic Foreign Ministers Conference will also be the occasion for introducing Nation-Wide Dialling (NWD) in Dhaka, Chittagong, Khulna and Bogra, in the first phase. Subsequently the NWD will be extended to the other 19 district headquarters and important towns.

The Board has also plans to introduce alarm telephones which the interested subscribers can get for use like the alarm clocks.

He said at present the country had 1,50,000 telephone subscribers, half of whom are in Dhaka city.

There are 500 telex subscribers in Dhaka, 140 in Chittagong, and 40 in Khulna. Three hundred new telex lines will be ready for letting out to subscribers before the Demember conference.

CSO: 5500/7022

## INSAT-1B SENDS FIRST WEATHER PICTURES, TEST COMPLETE

Madras THE HINDU in English 26 Sep 83 p 9

[Text] BANGALORE, Sept. 25--INSAT-1B, India's multipurpose satellite, now in its space home, flashed its first weather pictures to earth today as part of the continuing on-orbit check-out, the satellite controllers at the Master Control Facility in Hassan reported. The pictures were scanned by the very high resolution radiometer (VHRR) at 11 a.m. IST.

A Space Department bulletin said the full earth disc image was scanned in about 22 minutes, as expected. The imaging was in the visible band (0.55-0.75) micrometers), using reflected sunlight as well as the infrared band (10.5-12.5 micrometers) using earth emitted infrared radiations. The first imaging was followed by a second at about 11-30 a.m. through 11.52 a.m. The quality was said to be satisfactory.

The VHRR images were also received by the Indian Meteorological Department's Meteorological Data Utilisation Centre at New Delhi. For MDUC, the signals were received at the P and T's earth station in Bulandshahar and sent in real-time to MDUC over a microwave link for processing.

The bulletin said that with the completion of this event, the functioning of all service payloads on INSAT-1B, which attained its space slot on September 18, had been qualitatively verified. Quantitative tests on 11 of the 12 C-band telecommunications transponder channels have already been completed. Similar tests on the high power S-band transponder channels and the VHRR instruments are underway.

It was explained that today's imaging was essentially a functional check-out of the visible band imaging operation, though according to design, infrared imaging also accompanied visible imaging. The proper infrared imagings are scheduled for tomorrow, when the VHRR cooler infrared patch temperature is controlled to its normal operating temperature.

The spacecraft, which will boost the country's meteorological, mass communication and telecommunication networks, is expected to be available for user agencies for alignment and test on October 4, reports PTI. It is expected to become fully operational on October 15.

ETV programmes: The National Council of Educational Research and Training is all set to beam 140 educational television (ETV) programmes through the satellite for children in the age group 6-11, in the States of Orissa, Andhra Pradesh, Bihar, Uttar Pradesh, Maharashtra and Gujarat.

The programmes include subjects like science, culture, history and national integration, according to a spokesman of the NCERT. He said today that the Central Institute of Education Technology in Delhi had produced them for ETV.

The programmes, originally produced in Hindi, would be dubbed into Oriya, Telugu, Bihari, Marathi and Gujarati. They had been divided into two groups, one for the age group 6-8 and the other for the 9-11 group in view of the feed-back received through the Satellite Instructional Television Experiment.

CSO: 5500/7015

## PLANS FOR 1985 LAUNCHING OF STRETCHED ROHINI TOLD

New Delhi PATRIOT in English 6 Oct 83 p 5

[Text] BANGALORE, Oct 5 (UNI)--The first spacecraft of the stretched Rohini satellite series (SROSS) will be launched into space by the augmented satellite launch vehicle (ASLV) in the first half of 1985.

Prof U R Rao, director of the Indian Space Research Organisation's satellite centre, told UNI that work on the satellite as well as its carrier was now going on smoothly on schedule.

He said the 150-kg satellite would carry equipment, mainly to check out the ASLV, particularly its fourth stage.

The satellite is a technological mission to establish vehicle characteristics and the performance of spacecraft main frame systems. It would also carry some other limited mission elements.

The first static test of ASLV's strap-on-rocket motors were tested recently at Sriharikota range in Andhra Pradesh.

The SROSS series envisages development of spacecrafts for on-orbit operations with experimental payloads pertaining to scientific, technological and remote sensing missions. Both three-axis stabilised and spin-stabilised configurations are envisaged.

About the Indian Remote sensing satellite (IRS), scheduled to be launched from a Soviet cosmodrome in 1986, Prof Rao said its structural model would be ready by the middle of next year. A number of other models had to be built before the flight model was ready.

A preliminary review of the project revealed that it was moving fairly well.

IRS will provide a remote sensing system for earth resources survey. The 900 kg satellite will be semi-operational with three-axis stabilised. It will be placed in a polar sun synchronous orbit at an altitude of about 900 km. Data from the satellite during its design life of three years will be used in agriculture, forestry, geology, hydrology, and meteorology.

## Spot Launch

In Madras Prof B L Deekshatulu, director of National Remote Sensing Agency (NRSA) Hyderabad today disclosed that India would utilise the remote sensing satellite 'SPOT' to be launched by France in 1985 for better urban planning.

Delivering a keynote address at a workshop on remote sensing application for urban planning and development at the Anna University, Prof Deekshatulu said the Centre had sanctioned Rs 1.5 crores to build the grounds facility to receive pictures from the spot satellite. The French satellite was distinctly more advantaged than the Indian remote sensing satellite to be launched from the Soviet Union in 1985-86 for earth and ocean resources evaluation and monitoring, he said.

CSO: 5500/7021



PHONE CONNECTIONS TO HONG KONG IMPROVE; NEWS LINKS WEAK

Bombay THE TIMES OF INDIA in English 3 Oct 83 p 9

[Article by Harvey Stockwin]

[Text] HONG KONG, October 2--THE direct dialling of telephone calls between Hong Kong and India was initiated here this afternoon by the Indian minister for communications, Mr. V. N. Gadgil.

Hong Kong is the first point in East Asia to be linked this way with India. Direct dialling between Japan and India is due to be initiated in December this year.

The first call was placed by the minister at 2.30 p.m. when he dialled the number of his deputy minister, Mr. V. N. Patil, at his office in New Delhi, and was immediately connected. The minister remarked that it was an auspicious day for the call, being the birth anniversary of Gandhiji. The minister observed that the line was perfectly clear.

Before the call concluded, the secretary to the ministry, Mr. C. R. Vaidyanathan, spoke to the director of overseas communications, Mr. Ghose. Also in attendance at the ceremony was the area general manager of cable and wireless, Mr. Olsen, and the Indian commissioner to Hong Kong, Mr. C. V. Ranganathan.

The new advance today ended ten years of semi-automatic connection between Hong Kong and India via 28 Satellite circuits--17 to Bombay, eight to Delhi, and three to Madras. Now any subscriber here can dial any number in India which is attached to the direct dialling system within India. Likewise any Indian subscriber can dial any Hong Kong number.

The first telephone service, by radio, was initiated a shade under 30 years ago. The first indirect satellite link between India and Hong Kong came into play in 1971, and the first direct one a year later.

India becomes the 82nd nation with which Hong Kong has direct dialling links. India is the second nation in South Asia to be so connected, Sri Lanka having been the first.

In Contrast, India's connection with Hong Kong is its first in this region. One perspective on today's ceremony is that while Hong Kong's direct dial

connection with India is among its last, India's direct dial connection with Hong Kong is still near the top of a relatively short list.

This reminds one that India is in danger of being left behind by the rapidly growing speed of modern news and information distribution. International news agencies, such as Reuters, using Hong Kong as its computerised base, are busy installing automatic systems which will have six times the capacity of previous links.

But India is unlikely to benefit from this change. News-receiving machines in India have to be manufactured within India--and India only produces machines with one-sixth the capacity of the latest ones.

So, while news and data will be radiating at ever greater speeds throughout Asia in the next few months, India will still be receiving them at the old slow speed, solely because the newer more updated machines cannot be imported into India.

CSO: 5500/7018

## ITI PALGHAT UNIT TO BUILD ELECTRONIC TRUNK EXCHANGES

Calcutta THE STATESMAN in English 26 Sep 83 p 12

[Text] NEW DELHI, Sept. 25--The Government has decided to entrust the Palghat unit of the Indian Telephone Industries with the manufacture of electronic digital trunk automatic exchanges, in collaboration with Cit-Alcatel of France. The French firm is also a collaborator in the manufacture of large electronic exchanges--EIOB--at Gonda and Bangalore. The investment for this DTAX project is estimated at Rs 34 crores.

Discussions are on with the collaborators and the agreements are expected to be signed shortly. The capacity will be equivalent to 150,000 lines a year. Additional manpower, to the extent of about 700, is to be recruited. The Palghat unit is fully geared to reach the schedule of rolling out the first indigenously assembled DTAX in 18 months from the date of the agreement.

Telecommunication administrations took a deliberate decision to change over to the electronic switching exchanges, in view of the tremendous advantages offered in economics, ease of operation and the additional facilities that could be extended to the customer.

But in India, till recently, the Posts and Telegraphs was providing PABXs on a rental basis. It had difficulty in accepting the electronic PABXs, in view of the likely repercussions on the tariff structure.

Therefore, the Palghat products were not being lifted by the Posts and Telegraphs as fast as the unit could make them.

The recent decision of the P and T to permit subscribers to buy PABXs directly from the approved suppliers made the position of Palghat slightly better. Now, ITI can sell these PABXs directly to the subscribers.

The second line of product is PAX, of capacities of 10, 25, 50 and 200 lines. The first three products are stabilized and are on sale.

The 200-line PAX is the first indigenously designed processor-controlled unit to be introduced in India. The teething problems have been solved, according to the management, and the product is expected to find a wide market.

With the two electronic exchange factories scheduled to be commissioned in Gonda and Bangalore, India will reach a capacity of one million a year. But this will be nowhere near the requirements of the country. Further units manufacturing electronic exchanges must come up.

CSO: 5500/7014

## BRIEFS

GENEVA TELECOM EXHIBIT--NEW DELHI, September 25--Indian-made small capacity electronic exchanges will be on display at Telecom '83, the world telecommunication exhibition in Geneva next month. The exhibits will highlight the vital role of telecommunications in social and economic development, particularly in the countryside. For, these exchanges it could provide the much needed link with groups of villages. These exchanges have rolled out of the most modern unit of the Indian Telephone Industries at Palghat. Small capacity electronic PAX's and PABX's offer tremendous advantages in economy, ease of operation and additional facilities that could be extended to the customer. The recent decision of the P and T to permit subscribers like big business houses, corporations, hotels and hospitals to buy PABXs directly from the approved suppliers made the position of Palghat slightly better. Now, ITI can sell these PABXs directly to the subscribers. It is hoped that this product line will be kept busy hereafter. Mr. R. P. Subramaniam and Mr. Sundaram, senior officials of ITI, explained to a group of visiting newsmen that these products were the forerunners of large electronic exchange systems. The government has decided to entrust the Palghat unit with the manufacture of electronic digital trunk automatic exchanges (DTAE) in collaboration with CIT-Alcatel of France. According to Mr. Subramaniam, the investment for this project is estimated at Rs. 34 crores. [Bombay THE TIMES OF INDIA in English 26 Sep 83 p 9]

LOW-POWERED TRANSMITTERS ORDERED--BARODA, September 26 (UNI)--Doordarshan has placed orders worth Rs. 3.97 crore for 44 low-power transmitters from the public-sector Gujarat Communications and Electronics Limited (GCEL) here. A GCEL spokesman today said Bharat Electronics Limited (BEL), another public-sector undertaking will also supply about 60 transmitters under the plan. About 25 per cent of the country is now covered by Doordarshan's network, which is proposed to be extended to cover 70 per cent. The minister of state for information and broadcasting, Mr. H. K. L. Bhagat, accompanied by the deputy electronics minister, Mr. M. S. Sanjeevi Rao, visited GCEL today to see the production facilities and prototype's manufactured by the company. The Gujarat chief minister, Mr. Madhavsingh Solanki was also present during the Central ministers' discussions with the GCEL chairman, Brig. P. Madan and the managing director, Brig. J. C. Ahluwalia. All the transmitters will be delivered to Doordarshan by the end of June, the spokesman said. [Bombay THE TIMES OF INDIA in English 27 Sep 83 p 3]

MANUAL TRUNK EXCHANGE--A new Rs. 7-lakh manual trunk exchange was commissioned in Panaji on Monday. Mr. M. V. Vardhadkar, general manager, telecommunications, Maharashtra circle, Bombay, told newsmen that the new exchange would have 19 trunk positions and five positions exclusively for trunk booking and trunk information. He said Panaji would now have international trunk-booking facility to 60 countries. [Bombay THE TIMES OF INDIA in English 27 Sep 83 p 9]

SATELLITE COMMUNICATIONS SERVICES--NEW DELHI, Sept. 29--The Oil and Natural Gas Commission is one of the major customers utilising satellite communication services provided by Insat-1B, to bring data and voice communications from offshore platforms to the onshore station. The National Thermal Power Corporation which is installing super thermal power stations at Korba, Singrauli, Farakka and Ramagundam, is also examining the possibility of having satellite links with their headquarters for project management and other purposes. With the launching of Insat-1B, telecommunication, television, meteorological and radio networking services will be vastly improved in the country. There are 12 transponders for telecommunication services which will provide about 5,000 both way channels. A number of far-flung capitals of the States and Union Territories will be linked to Delhi and other important main centres. The launching of the satellite will afford an opportunity for introducing new and innovative services. Among these are point to multi point services. There are news agencies such as PTI and UNI which would benefit by the distribution of news to their various customers. The satellite network can also be used for collecting and distributing data for agencies like banks and industries. [Madras THE HINDU in English 30 Sep 83 p 7]

SATELLITE TELEVISION SYSTEM--Defence Minister R. Venkataraman on Sunday commissioned the country's first satellite television receiving system at the eastern naval port of Vishakapatnam, reports PTI. Designed to receive signals from INSAT 1B, the independent receiving antenna and the system have been designed by the Indian Space Research Organisation (ISRO) and installed by the Indian Navy. The system according to Defence Ministry sources would make it possible to receive national television programmes as and when they are beamed by the INSAT 1B. The Defence Minister later returned to the Capital. Commissioning the system, the Defence Minister said it would prove a great asset to the nation particularly to the service personnel as it would open the possibility of taking the television to far corners of the country including the forward areas and remote island territories. During his visit to the headquarters of the Eastern Naval Fleet, the Defence Minister visited the dockyard and was the chief guest at the Gandhi Jayanti celebrations at Navsena Bagh, the residential complex of the sailors in Vishakapatnam. Speaking on the occasion, Mr Venkataraman highlighted the role played by Mahatma Gandhi in the freedom struggle and said occasions such as his birth anniversary were time to recall examples set by him, "so that our souls could be ennobled". [New Delhi PATRIOT in English 3 Oct 83 p 10]

TELECOM TO LAKSHADWEEP--COCHIN, Oct. 3--The 12 telecommunication channels from the mainland to the Lakshadweep islands have been re-routed through the country's multipurpose satellite INSAT-1B. So far the channels were being routed through another satellite Intelsat. The Ernakulam satellite station established contact with INSAT-1B on Saturday and started operating the 12

channels through it for communication with Lakshadweep through the Minicoy and Kavaratti earth stations, also linked with INSAT-1B. An official spokesman said the trials were successful and the reception on the 12 channels "fine". Housed in a bowl-shaped site at Arakuzha about 55 km south-east of Cochin, the Ernakulam satellite station is one among the 28 earth stations linked with INSAT-1B. According to the official spokesman, tests are now in progress in regard to 72 channels connecting Bombay, Delhi and Calcutta. These trials are expected to be over in another fortnight, and once put through on a regular basis, telecommunication between various telephone exchanges in Kerala and the metropolitan cities of Bombay, Delhi and Calcutta would greatly improve. In all, 8000 channels are to be made available for improving the domestic communication system. The Arakuzha satellite station is linked with the Cochin microwave station, which in turn, is connected to the Ernakulam telephone exchange, the biggest in Kerala. The whole telephone network in Kerala is linked to the Ernakulam exchange. [Madras THE HINDU in English 4 Oct 83 p 11]

CSO: 5500/7013

POSSIBILITY OF ADDITIONAL WIRELESS FREQUENCIES EXAMINED

Tel Aviv HA'ARETZ in Hebrew 27 Sep 83 p 3

Text The Ministry of Communications is examining the possibility of making new frequencies available to the general public, which will entail significant improvement in service for those using electronic communication systems.

The Ministry is considering a proposal by Motorola Israel to implement a new wireless system, which is based on technology not used in Israel up to now.

To date, the Communications Ministry offers communications in the 170 MgH (VHF) and 70-450 MgH (UHF) range. Several large users take advantage of these frequencies, a fact which creates a tremendous overload on the system. As a result there are frequent disruptions with one user precluding another.

Recently Motorola Israel presented a proposal to the communications ministry applying for a license to operate in the 800 MgH range. In response to a HA'ARETZ reporter's question, the company's chief scientist, Prof Re'uven Medan, revealed that his company is planning to use this range for a trunk-line system which was only introduced in the U.S. in the last few years. This system operates on principles similar to those used by telephones. Each wireless center has 20 frequencies which the subscribers use in turn without disrupting each other.

In the system utilized today, a subscriber has to wait until a frequency becomes available before being able to use it. In the "trunking" system a central controller makes possible channelling of calls to available frequencies without disrupting any calls.

Prof Medan said that with the "trunking" system it will be possible to connect wireless systems to telephones. Voice encryption will also be possible to ensure subscribers' privacy. The new system is to be exhibited by Motorola Israel at the Telecommunications Exposition which will be held in Tel Aviv in October.

8646

CSO: 5500/1



RTS HOSTS REGIONAL COMMONWEALTH MEETING

Cooperation Stressed

Victoria NATION in English 26 Sep 83 p 1

[Text]

**SENIOR radio and television officials from the national broadcasting organisations of seven East, Central and Southern African states gather in Seychelles today for a regional group meeting of the Commonwealth Broadcasting Association (CBA).**

Hosted by Radio-Television Seychelles (RTS) at the Barons Beach Hotel on Mahé's west coast, the meeting will bring together directors and engineering, programme and technical staff from Radio Botswana (RB), the Voice Of Kenya (VOK), the Lesotho National Broadcasting Services (LNBS), the Malawi Broadcasting Corporation (MBC), Radio Tanzania — Dar es Salaam (RTD), Radio

Uganda and Uganda Television (RU/UTV), and the Zambia Broadcasting Services (ZBS). Mauritius, Swaziland, and Zimbabwe are not attending.

### Regional Co-operation

The British Broadcasting Corporation (BBC) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) will send observers.

The East, Central and Southern African Group Meeting will discuss regional co-operation, programme exchanges, training, the development of television, agricultural, rural and educational broadcasting, the Pan African News Agency and other subjects.

Seychelles has been a member of the CBA since 1969. Founded in 1945, the

Association groups 55 national broadcasting organisations from 50 independent Commonwealth countries, associated states and dependencies in Europe, Asia, Africa, the Caribbean, the Pacific and North and South America.

The CBA pledges to work for the professional improvement of broadcasting in member organisations through collective study and mutual assistance. It holds general conferences of all member organisations every two years, the last being in Canada in 1982, and the next one scheduled for Hong Kong in 1984.

In between, the Association holds various regional group meetings to discuss problems and exchange views more particular to the region concerned. Other groups cover West Africa and the Pacific, while the Caribbean is

covered by the Caribbean Broadcasting Union.

The East, Central and Southern African Group last

met in Botswana in 1981.

SAP

### Sixth Meeting Opens

Victoria NATION in English 27 Sep 83 pp 1, 2

[Text]

**SEYCHELLES yesterday morning urged national broadcasting organisations in the region to strive to work together fruitfully, at a time when co-operation among developing countries in almost every field had amounted to practically little.**

Opening the sixth meeting of the East, Central and Southern African Group of the Commonwealth Broadcasting Association (CBA) that is being hosted by Radio-Television Seychelles (RTS) at the Barbarons Beach Hotel, National Development Minister Jacques Hodoul speaking on behalf of Education and Information Minister James Michel said that not much had been done in South-South co-operation so far, apart from filling up minute papers.

But CBA Secretary-General Alva Clarke noted that until broadcasting organisations put their own houses in order, it would not be practical to expect worthwhile co-operation in the near future.

Noting that neighbouring countries now had to learn about each other through third party and culturally alien information systems, Minister Hodoul called on the organisations at the Barbarons meeting to resolve to produce and exchange at least one programme each per year on their countries' respective ways of life.

"This will help us to know each other in the way we truly are and not in the way another person thinks we are", Mr. Hodoul said.

### RTS' role

On RTS' role within the national context, the Minister explained that as well as informing, educating and entertaining, the country's broadcasters also had to motivate the people to play their full role in national development. "By the very nature of their work in this development process, broadcasters should be more than mere professionals - they need to be committed to this process", Mr. Hodoul said.

He noted that for too long developing countries had

viewed communication as a one-way process involving a sender and a passive receiver, and information as being somehow objective, immutable, and sacred.

### Obligation

But Seychelles believed that broadcasters had an obligation to take information and "decode it into a form consistent with the values, assumptions and aspirations of the receiving society."

"It is through a kind of participatory communication that we feel a new world order will be possible. We must dare to process the information we receive, to relate it to the welfare of our society, and, in this way, to communicate as active receivers with those societies on whom we are dependent for information."

Only thus could there be genuine communication and true international understanding, Minister Hodoul said.

Agreeing that broadcasters had to be more than mere professionals, the CBA Secretary-General, Mr. Clarke, said, "The sum total of public

service broadcasting . . . is a fundamental commitment to informing, educating, entertaining and . . . in the context of developing countries, motivating people to play the fullest role in national development".

Broadcasters had to be dedicated people in the service of the country at large "all the time, all of the time", Mr. Clarke said.

Agreeing in principle to Seychelles' call for regional co-operation, the CBA Secretary-General said that broadcasters in each country would have to provide an efficient service to their own people first. "The absolute business of a broadcasting organisation

must begin locally," he stressed.

### **Basic idea**

The five-day meeting is being attended by the national radio and television services of Botswana, Kenya, Lesotho, Malawi, Tanzania, Zambia and Seychelles, Mauritius, Swaziland, Uganda and Zimbabwe are also included in the regional group.

The directors and engineering, programme and technical staff have been joined by observers from the British Broadcasting Corporation (BBC) and the United Nations Educational and Scientific Organisation (UNESCO).

Mr. Clarke described the basic idea of such a meeting as being a forum where members of about the same level of broadcasting development could get together every two years to compare notes, examine the various facets of broadcasting and learn how each was approaching broadcasting.

The meeting will discuss such subjects as regional co-operation, training, agricultural, rural and educational broadcasting, television development and the radio in promoting African music and culture.

**SAP**

CSO: 5500/13

SEYCHELLES, CHINA EXCHANGE TELEVISION PROGRAMS

Victoria NATION in English 3 Oct 83 pp 1, 10

[Text]

THE Seychellois and Chinese peoples can look forward to learning much more about each other through their respective television services following an agreement reached in China last month, Education and Information Minister James Michel said yesterday.

Mr. Michel returned home on Saturday from a two-week trip that took him to Peking first and then to the Democratic People's Republic of Korea for the first conference of non-aligned education and culture ministers.

A protocol on the exchange of television programmes between Radio-Television Seychelles and China Central Television was signed by Minister Michel and the Acting Chinese Minister for Radio and Television, Mr. Xyi Wenking.

The two sides expressed special interest in programmes on agriculture, fisheries, small-scale industries, handicraft, culture, art, health, sports, entertainment, the lives of the two peoples, and news items.

Both television services will choose whatever programmes they believe are suited to their respective audiences.

"This will allow our two peoples to learn more about each other, and especially about the progress each is making in their respective development struggles," Minister Michel told the information services yesterday.

He said that he also had a particularly interesting meeting with Vice-Premier Tian Ji Yun, to whom he delivered a message from

President Albert René to President Li Xianian of the People's Republic of China.

For some 40 minutes, the two men discussed the strengthening relations between Seychelles and China, the need for more South-South co-operation, the continuing struggle to turn the Indian Ocean into a Zone of Peace and other matters of mutual interest.

"Vice-Premier Tian especially stressed China's desire to strengthen co-operation with Seychelles, particularly in the economic social and commercial fields," Mr. Michel said.

With the Minister for Education, Mr. He Dong Chang, Mr. Michel discussed more co-operation in this field, including the possibility of Chinese scholarships, and the progress of the Anse

Royale Polytechnic campus being built by the Chinese.

The two men also exchanged views on their countries' respective education systems and Minister Michel told the information services: "It was very interesting to see how China in consolidating the democratization of its education system and improving the quality of its education, so as to produce the so many cadres that a country of one billion people needs."

Other talks were held with the Director of the New China News Agency (Xinhua). The two sides agreed that the Seychelles Presse Agency (SAP) would use Xinhua dispatches to Africa free of charge, while the two press agencies worked on a formal agreement to be signed later on.

**SAP**

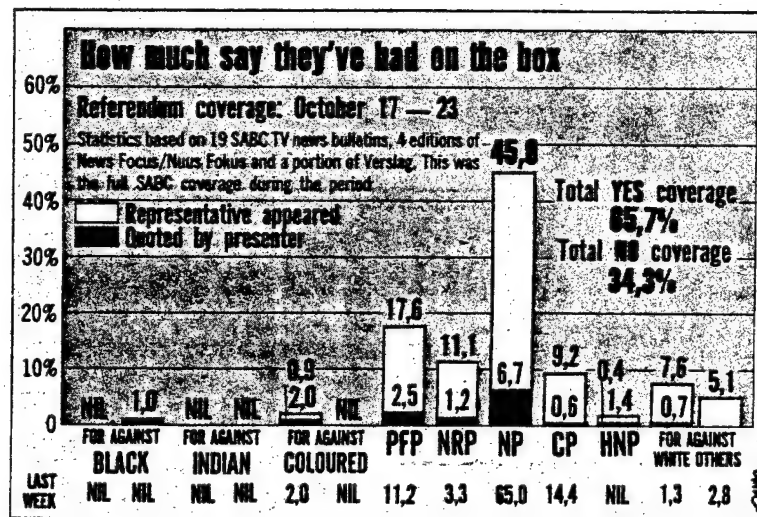
CSO: 5500/15

## VAST IMBALANCE IN 'YES-NO' VOTE COVERAGE CLAIMED

Johannesburg RAND DAILY MAIL in English 25 Oct 83 p 10

[Article by Greg Garden: "Statistics Cannot Show UP SABC's Grey Areas"]

[Text]



IN SPITE of repeated statements from the Director-General, which have received generous coverage in SABC TV news bulletins, that the SABC is covering the referendum campaign impartially, last week's television coverage yet again showed a vast imbalance in the "yes/no" argument.

The new statistics show a 20% fall-off in National Party airtime, but this amount has merely been redistributed among other proponents of the "yes" vote, most notably the New Republic Party.

Thursday's main news bulletin also presented the SABC's first coloured speaker since my monitoring began: a loquacious Mr Elbrahim of Revensmead, who took the opportunity of addressing his exclusively coloured audience as if they were exclusively whites.

"If you vote no, we will read it as a sign of rejection," he said.

One of the major problems in compiling these graphs over the past five weeks has been the question of how to classify material which insinuates a stance towards the referendum question, but does not clearly state that stance.

To ensure the statistics have validity, and to keep personal interpretation to a minimum, these "grey" areas have not been taken into account.

A notable example is the News Focus programmes, in which Professor S A S Strauss "explains the facts" of the proposed Constitution.

He alone had nearly 30 minutes of airtime this week, in three separate programmes.

His "factual explanations" were peppered with "buts" and "however's".

If the SABC is at all serious about its impartiality, how grammes.

Each time, his justification (rather than explanation) and support (rather than neutral assessment of) the new system was even more could it even begin to justify using, as an impartial authority, someone who has publicly urged a "yes"?

A large advertisement in the Sunday Press ran "We urge you to vote, and to vote Yes". Prof Strauss was one

of the signatories.

Another abuse occurred in Friday's Nuus Fokus programme on the economics of the proposed constitution.

A presenter introduced the material, and appeared regularly throughout the body of the programme to structure and direct it, and to give the impression of due impartiality.

But, instead of carrying this through to the end, the presenter suddenly disappeared, leaving the National Party's Professor Sampie Terreblanche to conclude the programme by asking viewers to take note of "the economic opportunism of the PFP and the economic fairyland of the CP".

The statistics of the past month reveal a 68.2% coverage of the "yes" vote by the SABC-TV.

What this stark figure does not reveal are all the other less obvious methods used by the corporation to sell the Government line.

CSO: 5500/19

## HEALTH OF COMPUTER BUSINESS REPORTED

Johannesburg INDUSTRIAL WEEK in English 4 Oct 83 p 3

[Text]

**WITH 1983 sales heading for R500-million — R50-million on micro-computers alone — and expected to grow by a breathtaking 30-40% a year, the computer business in SA has never been healthier.**

But at the same time, half of the 12 firms in the industry are steadily going down the drain and predictions are that only four or five of the major operators will be left in the foreseeable future.

One explanation for this chilling paradox was given to *Industrial Week* by Bob Davis, communications manager of ICL, which is having the

best year in its history.

ICL, with a 20% share of the SA market, is second only to IBM at the top of the league.

"The answer revolves not only around computers but the application of computers", he says.

"They have to be put in situations where they perform problem-solving functions for their users.

"It's the ability to do this that separates successful computer companies from the flops."

To illustrate ICL's approach, Davis says one growth area the company has identified and was going into very strongly was networking — the use of computers in offices that were not stand-alone machines but computers

that could communicate with other computers.

Another, highly viable market had been found in industry, where there was a growing trend towards computer-aided manufacturing.

Davis names Defy, International Harvester and Adcock Ingram among firms for which ICL has devised complete systems for operating in their manufacturing processes.

Retailing was another growth area for computers, he says. Checkers and Truworths, for instance, are putting in machines that will provide an instant assessment of a customer's standing.

Buyers at Checkers will in future be able to place

orders from their homes by means of a computer linkup with their television screens.

Then there is growing demand from municipalities, which are turning to computers for a large variety of uses apart from getting out the water and electricity bills.

Davis cites the Port Elizabeth City Council which has found a novel and profitable application for its equipment.

It has got the computer to advise it how to cut Escom bills to the bone by keeping peak electricity consumption, which is higher rated than off peak, as low as possible. This monitoring will save the municipality R200 000 a year.

CSO: 5500/12



## BRIEFS

**EKSTEEN SLATED FOR 'POLITICAL BIAS'**—Mr Peter Soal, Progressive Federal Party MP for Johannesburg North, has strongly condemned the Director General of the SABC, Mr Riaan Eksteen, for making "politically loaded comments". Mr Soal was reacting to a statement last week in which Mr Eksteen commented about the PFP having partners in the referendum campaign. "It is not for Eksteen to make politically loaded comments about us having partners in this campaign. We have made it abundantly clear that we distance ourselves from the Conservative Party, let alone the Herstigte Nasionale Party," Mr Soal said. He added that Mr Eksteen must understand that "he is a public servant, whose salary is paid for by the hundreds of listeners who are renewing their licences this month. Mr Eksteen also stated last week that the SABC had been "meticulous in the referendum campaign to reflect argument and standpoints from both sides." "I challenge him to publish those statistics," Mr Soal said, "because we all know that the SABC has favoured the NP in this campaign." [Text] [Johannesburg THE CITIZEN in English 17 Oct 83 p 4]

**ARGENTINE MINE ORDERS COMPUTER SYSTEM**—NUCLEAR Mendoza S.E., a mining company based in Buenos Aires, Argentina, has ordered an open pit computer mine planning system and geostatistical analysis package developed in South Africa by consulting engineers Steffen Robertson & Kirsten. The choice of the South African system was made in the face of strong competition from the USA and Canada. After preliminary selection of the South African system, Nuclear Mendoza requested a full demonstration. Mr Richard Skelton, a senior mining engineer with Steffen Robertson & Kirsten, travelled to Argentina and mounted the programmes to run the demonstrations on live data from the relevant uranium mines. The order was placed for DMIPS and Geopak-2, which constitute the full system. DMIPS, (Dynamic Mine Planning System), is a general purpose open-pit mine planning system. It includes a geological data base with facilities for data analysis, statistics, geostatistics, ore-body modelling, pit design and evaluation, and financial analysis. It is believed to be unique in several areas, including the level of control for geological and trade modelling and that it incorporates a geotechnical control on the allowable pit slope angles. [Text] [Johannesburg MINING WEEK in English 19 Oct 83 p 7]

## BRIEFS

CANADIAN AID SATELLITE STATION--The earth satellite station in Ezulwini is to be officially launched by the prime minister, Prince Bhekimpi today. The E5 million project means Swaziland will now be able to communicate directly with overseas countries, without going through South Africa. It also means we will be able to communicate direct with Britain and the United States by telephone and telex. The director of posts and telecommunications, Mr John Sikhondze, said the satellite station is the backbone of communication services in the country. The station will enable Swaziland to watch events in either of the two countries live on local television. "We shall in due course be linked with other countries both in Africa and abroad," Mr Sikhondze said. The Canadian Government provided a E3.5 million loan to buy equipment for the station. [Text] [Mbabane THE TIMES OF SWAZILAND in English 14 Oct 83 p 24 MB]

TV COMPANY NATIONALIZED--The Swaziland Government has named the company which used to be called Vision Hire, Swaziland Television Authority Rentals [STAR]. In a press statement issued to Swaziland Broadcasting Services [SBS] today, the principal secretary in the deputy prime minister's office, Mr A.R. Shabangu, said the Swaziland Government has now taken management of both Swaziland Television Broadcasting Corporation [STBC] and the STAR. The government purchased the two companies last year. Mr Sam J. Magagula, former deputy principal secretary in the Ministry of Education, who has been general manager-designate for a few months, has taken over full responsibility for the running of the organization. The two organizations are now run as para-statal, under the act of parliament under which a body was established to supervise the operation. [Text] [MB211647 Mbabane Domestic Service in English 1600 GMT 21 Sep 83]

CSO: 5500/7

## BRIEFS

INTERSPUTNIK APPROVES DRAFT ACCORD--Tashkent, 19 Oct (TASS)--The 12th session of Intersputnik, international space communication organisation, currently underway in the capital of Soviet Uzbekistan, has approved a draft agreement with the International Telecommunication Union (ITU). The draft fully reflects the interests of both sides, John Francis, the ITU's representative, told the session. It provides for a broad exchange of information, mutual participation in international symposiums, conferences and other meetings. The ITU representative stressed that the agreement between the International Telecommunication Union and Intersputnik will become an important step in exploring and using space for peaceful purposes. John Francis stressed Intersputnik's great role in developing and perfecting national communication systems in developing countries. Business partnership between the two organisations, he said, will help raise the effectiveness of this work. [Text] [LD191946 Moscow TASS in English 1510 GMT 19 Oct 83]

CSO: 5500/1008

FRANCE

BRIEFS

DP FOR SMALL FRENCH FIRMS--Paris. Small commercial and craft businesses are going to be able to have access to a technology which has been the province of large industries up to now, thanks to a plan of action for the coordinated development of data processing in this sector. An agreement protocol, signed on 6 September in Paris by Laurent Fabius, minister of research and industry, and Michel Crepeau, minister of commerce and crafts, is designed to promote widespread experimental activities and to accompany computerization with training and consultation services. This project, which has a 13.8 million franc budget for the first year (8.8 of which is from the data processing agency), should be completed in 1985 with the development of a complete data processing system meeting the basic needs of the firms in question (accounting, invoicing, inventory management, word processing), for a total of 20,000 francs. [Text] [Paris AFP SCIENCES in French 8 Sep 93 p 22] 9805

JEUMONT-SCHNEIDER'S CORDLESS TELEPHONE--Paris. SECRE, a subsidiary of Jeumont-Schneider with 67 percent ownership, has just developed the first French cordless telephone approved by the PTT. It allows a person to move within a radius of 110 meters around the principal post, the firm has reported in Paris. This telephone, which can automatically redial when a number is busy, consists of a normal touch-tone device, but the receiver is cordless and has a receiving antenna. It has a secret code to prevent interference or listening in on telephone conversations. Available to the public at the price of 2,500 francs, this telephone--several thousand units of which are expected to sell in 1984--is Jeumont-Schneider's first peritelephonic product. The sales volume of the group's telecommunications sector (telephone equipment, office systems, data processing) amounted to 600 million francs out of a total of 5.1 billion in 1982. [Paris AFP SCIENCES in French 15 Sep 83 p 46] 9805

CSO: 5500/2503

END